

As discussed above, the reservations policy is based on the FCC's recognition that noncommercial entities generally do not have the resources to compete effectively with commercial interests for spectrum. The Commission's reasons for reserving VHF and UHF channels -- the substantial public interest in educational television service and the fact that it takes longer for noncommercial entities to raise funds and build facilities -- applies with special force to the new ATV technologies, which may be beyond the immediate financial means of many public broadcasters. If the FCC does not allot additional spectrum for ATV to public television stations in a rulemaking proceeding, public television may be unable to raise the funds needed to compete with commercial broadcasters for such spectrum and modify its facilities to employ the new technology. This would frustrate long-standing FCC and Congressional policy fostering a public television system comparable in technical quality to commercial television. See pages 12, 15 supra.

As noted in the comments filed in this proceeding last year by the national public television organizations,^{20/} the superior picture and sound quality promised by ATV will be particularly valuable in enhancing the cultural, nature, and scientific programming that are the hallmarks of public television -- programs like NOVA, GREAT PERFORMANCES, and the

^{20/} See Comments of PBS, CPB and NAPTS in MM Docket No. 87-268, filed November 18, 1987.

NATIONAL GEOGRAPHIC SPECIALS. The House Committee on Energy and Commerce recently recognized the vital importance to public television of ATV's superior technical quality:

Advanced and/or high definition television (ADTV and HDTV) promise to offer many new uses for the television medium in addition to enhanced home entertainment services. This advanced technology will have critical applications in the fields such as medicine, microbiology, education and engineering. The Committee believes that it is critical that the public broadcasting system be able to take advantage of technologies such as advanced television technologies, including HDTV . . .

Public Telecommunications Financing Act of 1988, H. R. Rep. No. 825, 100th Cong., 2d Sess. 14 (July 5, 1988) (emphasis added). The only way that the Commission can ensure that public television is in fact able to take advantage of ATV is to accord public television priority treatment in allotment of spectrum.

D. Allotment and Post-Allotment Policies and Procedures Should Be Assessed In Light of Commission Policy Towards Public Television.

The Commission proposes several procedures as alternatives to, or to be used in conjunction with, an allotment rulemaking. While Public Television believes, as explained above, that it is premature for the Commission to choose an allocation procedure, it feels compelled to note certain respects in which some of the proposed allotment and post-allotment procedures and policies are fundamentally inconsistent with the Communications Act and the long-

standing federal policy fostering the development of the nation's public television system.

One of the allotment procedures proposed by the Commission is a "demand" system under which it would specify the criteria for determining the suitability of spectrum for ATV use and interested parties would apply for it on a first-come, first-served basis. Public Television agrees with the Commission's own preliminary assessment that a "demand" system would simply reward early applicants for supplemental spectrum and would likely result in a suboptimum distribution of spectrum. Notice at ¶ 140. To the extent that there are fewer supplemental channels than existing television stations, a demand procedure is also likely to engender many mutually-exclusive requests resulting in litigation that would be slow and expensive to resolve. A demand system would disadvantage, in particular, public television stations, which do not have the resources to compete for spectrum with commercial interests and cannot mobilize their resources as quickly as commercial broadcasters. See pages 10-11 supra. For these reasons, a demand procedure would not serve the public interest.

The Commission also proposes a number of different possible procedures to be used in conjunction with an allotment rulemaking. To the extent that a particular supplemental allotment could only be associated with a single station, the Commission would amend the Table of Allotments

to allocate the supplemental channel to that station. If a number of stations could use a supplemental channel, however, the Commission would employ some type of selection process to make the specific allotments. The three procedures proposed are private agreements, lotteries, and hearings.

Public Television opposes leaving allocation of spectrum to the agreement of private parties. Private negotiations would be driven by the economic interests of the parties rather than the needs and preferences of the communities to be served. Allocation of spectrum by private agreement poses the greatest threat to noncommercial educational stations, which have lesser financial resources than their commercial counterparts and may thus be unable to compete in the marketplace for additional spectrum.^{21/}

Public Television also agrees with Commissioner Quello that

^{21/} Allocation of spectrum by private agreement suffers from the same drawbacks that spurred Congressional opposition to the Commission's proposal to allow UHF/VHF channel swaps:

Since the 1950's, the Congress has been deeply involved in ensuring that public broadcasting has adequate channel assignments for a nationwide system. Today, there are over 300 public television stations, with some 120 on the VHF band. These stations are public broadcasting's birthright . . . There is also a major concern about the fate of Government funding for the entire public broadcasting system once a few stations swap and receive huge sums of money. The risks of grave consequences to the public broadcasting system from interband swaps are too great to permit a short-term gain for only a few.

S. Rep. No. 182, 100th Cong., 1st Sess. 77 (1987).

leaving the allocation of ATV spectrum to private negotiation would constitute an abdication by the Commission of its responsibilities under Section 307(b) of the Communications Act.^{22/} The Commission is obligated under Section 307(b) to distribute licenses among communities so as to provide a "fair, efficient, and equitable distribution of radio services to each of the same." 47 U.S.C. § 307(b). Only the Commission, not private parties, can ensure that the distribution of spectrum is accomplished in a fair and equitable manner that serves the interests of viewers in communities throughout the nation.^{23/}

Lotteries and comparative hearings would also be inappropriate alternatives to allotment of spectrum by the Commission in a rulemaking proceeding, at least as applied to noncommercial stations. Lotteries suffer from the same basic defect as private agreements -- they fail to take the public interest into account. While comparative hearings can be structured to take account of public interest factors, they would be exceedingly costly and time-consuming for both the Commission and the television stations that choose to apply for the spectrum. Public television stations in particular cannot afford to expend their scarce resources in hearing

^{22/} See Commissioner Quello's Statement, at 5.

^{23/} For the same reasons, Public Television opposes permitting television licensees to reach private agreements to reduce their service areas to avoid interference.

proceedings. And, as noted above,^{24/} their lesser resources would put them at a disadvantage vis-a-vis commercial broadcasters regardless of the comparative criteria adopted by the Commission.

In conjunction with whatever allotment scheme the Commission ultimately adopts, it proposes to adopt a "use-it-or-lose-it" policy. Under such a policy, a licensee would be given a fixed amount of time to use a particular allotment or would be required to surrender it. See Notice at ¶ 145. Should the Commission decide to adopt such a policy, noncommercial broadcasters should either be exempt from the policy or be given an extended period of time within which to utilize the spectrum. As noted above, the Commission's noncommercial reservations policy is grounded on the recognition that noncommercial broadcasters need more time to raise funds and construct facilities than their commercial counterparts.

IV. The Commission Should Facilitate The Implementation Of ATV Terrestrial Broadcast Technology By Selecting A Single ATV Standard, Assuring Inter-Media ATV Compatability, And Prohibiting Non-ATV Use Of ATV Spectrum.

The Commission now has before it a number of technical issues -- such as whether to select an ATV terrestrial broadcast standard and the method to be used for achieving ATV compatibility between media -- the resolution of which may have a dramatic impact on the future of ATV

^{24/} See pages 10-15 supra.

broadcast services in the United States and, indeed, on the continued viability of the nation's local broadcast stations. PBS urges the Commission to resolve these issues in a manner that facilitates the implementation of ATV terrestrial broadcast technology and permits local broadcast stations to remain a vital force in the video marketplace.

**A. The Commission Should Select and Mandate A
Single ATV Terrestrial Broadcast Standard.**

The issue of whether to adopt a single mandatory ATV standard has perhaps as serious implications for the future of ATV terrestrial broadcasting as any issue raised by the Commission in the Notice. Failure of the Commission to adopt a single ATV standard might well result in the emergence of a de facto standard, or worse, multiple standards, selected on the basis of lower short-term costs and marketing success rather than the nation's long-term communications goals. For example, a de facto standard might develop because of early pressures to develop a system that interfaces well with cable or DBS transmission standards because those media will be able to offer ATV services before terrestrial broadcasters. Such a standard may offer little, however, in the way of long-term public interest benefits such as technical quality and spectrum efficiency.

The emergence of multiple broadcast standards could fragment the market and thus delay or prevent implementation of ATV broadcast technology. The still nascent state of AM stereo provides a sobering lesson on the costs of allowing

the marketplace to establish a technical standard in a new service. And even if, unlike AM stereo, ATV broadcast services do eventually take hold even with multiple standards, multiple standards would nevertheless prove costly for consumers and broadcasters alike. Market fragmentation would result in higher equipment costs and wasteful purchases for those who are unfortunate enough to purchase equipment based on an ultimately unsuccessful standard.

Public Television thus believes that it is imperative that the Commission adopt a single mandatory ATV broadcast transmission standard.^{25/} Given the expense and uncertainty surrounding the implementation of ATV broadcast technology in the United States, Commission adoption of a single ATV standard for terrestrial program would be enormously helpful in inducing broadcasters, consumers, and perhaps even distributors of alternative media to invest in the equipment required to provide ATV services.

For the same reasons, Public Television also urges the Commission to mandate a fairly complete standard rather than to protect only key aspects of a system from interference. ATV technology is much more complicated than stereo television technology, where the Commission standardized merely one system feature. Protecting only certain ATV system features would leave open the possibility

^{25/} Obviously, for the reasons discussed at length in Section II, supra, the Commission will not be in a position to adopt a single ATV standard for some time.

that a later developed system may not be receivable by, or would cause picture or sound degradation in, ATV receivers manufactured earlier. While it would be desirable to leave open the potential for future technological improvements, such improvements should not be allowed to obsolete or in any way degrade the video or audio quality of earlier ATV receivers and thus disadvantage early purchasers of ATV receivers. Any threatened obsolescence of ATV receivers purchased early in the technology's development would delay the implementation of ATV and thus disserve the public interest.^{26/}

Public Television applauds the Commission's intention to "have a role in the ATV standards setting process." Notice at ¶ 121. And, while PBS agrees that the resources and expertise of the industry are crucial to the successful development of a standard, it believes that active Commission involvement in setting a standard is indispensable to assuring that any standard reached by industry consensus furthers the long-term public interest.

For example, some firms may find the short-term advantages of adoption of an NTSC-compatible system standard appealing despite accompanying quality and long-term spectrum efficiency trade-offs. Yet it now appears, based on

^{26/} PBS believes that many of the considerations that compel the Commission to choose a single mandatory ATV terrestrial broadcast standard also militate against the "open architecture" approach being urged on the FCC by non-broadcast media.

preliminary system tests, that a 6 MHz simulcast system that is not constrained by NTSC compatability requirements could possibly provide better picture and sound quality than any compatible NTSC system or ATV system using an augmentation channel. A 6 MHz simulcast system might also be more spectrum efficient in the long-term because, as the number of NTSC receivers declines, the need for NTSC simulcasting will disappear and additional spectrum will become available. Moreover, it is possible that simple ATV-to-NTSC converters may obviate the need for high-powered NTSC transmitters; simulcast systems may thus offer greater short-term spectrum efficiency as well.

Because adoption of an ATV broadcast transmission standard involves complex issues and will be critical to the success of terrestrial broadcasting of ATV, it requires careful consideration of the long-term public interest. The Commission should not permit factors such as short-term NTSC compatability and short-term spectrum efficiency to outweigh the public interest in optimal broadcast quality and long-term spectrum efficiency. Undue deference by the Commission to a consensus standard could hinder the development of superior broadcast ATV services and thus constitute an abdication of the Commission's statutory responsibility to "encourage the larger and more effective use of radio in the public interest." 47 U.S.C. § 303(g).

B. ATV Compatibility Among the Media And Interoperability of ATV Consumer Equipment Are Critical to the Successful Implementation of Broadcast ATV.

There is general industry agreement that ATV compatibility among the various video media is desirable. See Notice at ¶ 127. The Commission has nonetheless tentatively concluded that "ATV compatibility among alternative media also may develop in an appropriate manner without government involvement." Notice at ¶ 133. Public Television believes that ATV compatibility among the media is too important and too complex to be left to marketplace determination. Even if the various segments of the video delivery industry eventually were able to reach agreement voluntarily on a compatibility standard, that standard might not serve the public interest. The same factors that Public Television believes compel the Commission to mandate a single ATV broadcast standard are operative here. The prior development of ATV services by other video delivery services, such as cable or DBS, may well mean ATV receivers would be built to suit those media's needs unless otherwise regulated. To achieve compatibility, terrestrial broadcasting will then be constrained by the systems used by those media, regardless of whether those system constraints are otherwise in the public interest.

Public Television therefore urges the Commission to encourage and, to the extent possible, require compatibility among the various ATV video delivery services and

interoperability of consumer ATV equipment. The Commission can take a number of steps to achieve these goals. First, the Commission should ensure that all television receivers sold in the United States are capable of receiving all ATV channels (and, during a transition period, NTSC broadcast channels as well) and are capable of receiving ATV broadcasts in the system standard adopted by the Commission.^{27/}

Second, the Commission should seek to ensure that the ATV transmission standards used by alternative media such as cable and DBS are sufficiently similar to that used by terrestrial broadcasting such that consumers can use essentially the same equipment to receive ATV services distributed by all media.^{28/} If the standards for different media are so diverse that consumers need complex multiple converters, multiple signal processors, peripheral devices and/or open architecture equipment, the introduction of

^{27/} The All-Channel Receiver Act of 1962, 47 U.S.C. § 303(s), clearly empowers the Commission to require reception of all ATV channels. The policies underlying the All-Channel Receiver Act, when read in conjunction with Sections 1 and 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151 and 154(i), make clear that the Commission also has authority to require that television receivers sold in the United States are able to receive transmissions broadcast in the ATV standard adopted.

^{28/} The Commission may mandate the ATV transmission standard used by DBS services since they use radio frequencies. It may also mandate a cable ATV transmission standard, since here such regulation is "reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting." U.S. v. Southwestern Cable Co., 392 U.S. 157, 178 (1968).

terrestrial broadcast ATV services could be severely crippled. For example, if terrestrial broadcasters were to adopt an analog baseband system and cable were to adopt a digital baseband system, the inputs would be so different that the only part of the television receiver shared by the different media would be the monitor. Reception of both inputs would require separate tuners and signal processors, which would not only raise equipment costs, but would also run the risk of confusing consumers.

If the Commission is disinclined to mandate a common transmission standard for ATV services provided by broadcasters, cable operators and DBS licensees, it could, at the very least, require that all receivers sold in the United States use the same basic signal processing approach. This would ensure that consumers will not be forced to purchase multiple converters and other peripheral devices or unduly expensive receivers. Regulation of either transmission standards or receivers would also avoid burdening the distribution system with many complicated interfaces and promote the free exchange of programs among the different media.

C. The Commission Should Encourage Adoption of A Single Worldwide Production Standard.

The Commission solicits comments on various ATV production standards. Notice at ¶ 21. PBS believes that adoption of a single worldwide production standard for international program exchange will facilitate the

introduction and success of ATV services by making ATV programming more readily accessible. PBS therefore strongly supports adoption by the International Radio Consultative Committee ("CCIR") of the 1125/60 production standard already adopted by the Advanced Television Systems Committee, the Society of Motion Picture Television Engineers, and the American National Standards Institute.^{29/}

The 1125/60 standard is the only production standard proposed to date that stands any chance of being adopted worldwide.^{30/} It is thus the only proposed production standard that would permit international ATV production standardization and thus the international exchange of ATV programs. PBS and the many other broadcast organizations that use foreign-produced programs, sell their programs abroad, or have co-production arrangements with foreign coproducers, will benefit greatly from a single worldwide production standard. The 1125/60 production standard is also readily convertible to, and thus compatible with, all broadcast transmission standards now being developed in the

^{29/} NAPTS takes no position at this time on which production standard the Commission should support.

^{30/} The 1125/60 production standard is the only production standard that has received enough support to be presented to the CCIR for consideration. Neither the Eureka production standard nor a production standard based on a 59.94 hz field rate were considered viable candidates by the CCIR study groups because they are not readily convertible to all broadcast transmission systems.

United States.^{31/} For these reasons, international agreement on the 1125/60 standard is clearly in the public interest. PBS strongly urges the Commission to assist the State Department in its efforts to secure adoption of this standard by the CCIR.

PBS recognizes that a need may develop for an additional standard used exclusively in connection with programs produced for domestic use that is down convertible from the 1125/60 standard and more closely related to the terrestrial broadcast transmission system standard. At the present time, however, the industry should focus on the development and standardization of a terrestrial transmission system. When and if a standard for domestic ATV production and distribution is necessary, it will be a natural result of the transmission system chosen for the United States.

D. The Commission Should Not Allow Non-ATV Use of Supplemental Spectrum.

Notwithstanding broad-based opposition by the commenting parties to the Commission's proposal to allow non-ATV use of supplemental spectrum allocated for ATV, the Commission proposes to permit non-ATV use on a secondary basis during a "defined transitional period." Notice at

^{31/} All such transmission systems currently being developed use either a 59.94 or 60 per second field rate. To convert any but a live transmission to a 59.94 per second frame rate system, the frame rate is simply slowed. Converters that store and then periodically eliminate a frame have been developed for use with live material. The process used is similar to that used to convert 35 mm film for use in Europe.

¶ 152. It proposes to allow non-ATV uses on a transitional basis because it expects that licensees "will not all proceed at the same pace" and that "some spectrum may lay idle while the demand for ATV develops." Id.

While the Commission is undoubtedly correct that not all licensees will proceed to implement ATV at the same pace, Public Television believes that allowing non-ATV uses of spectrum allocated for ATV will create economic incentives that will operate generally to slow that pace. During whatever transitional period the Commission might permit non-ATV use of ATV spectrum, television licensees will have an economic incentive to delay implementation of ATV. Marketplace principles may not protect the public interest in free television service in a case such as this where that interest would have to compete with market demand for non-broadcast services. This is particularly true here since the non-broadcast services may generate substantial immediate revenue for television licensees whereas initiation of ATV service will require them to make substantial up-front capital investments.^{32/}

^{32/} It should also be noted that permitting television stations to use or lease ATV spectrum for non-ATV purposes would probably create increased demand for such spectrum and thus exacerbate spectrum allotment problems. The Commission expresses some hope in the Notice that the problems it might otherwise face in allotting spectrum may be alleviated because some broadcasters may decide not to offer ATV service and therefore decline supplemental spectrum. Notice at ¶ 146. That scenario would almost certainly not materialize if licensees could profitably use or lease the additional spectrum for non-ATV purposes for some period of time.

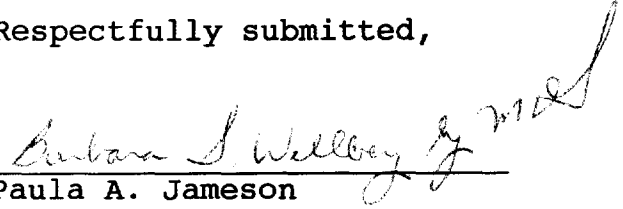
Rapid and widespread implementation of ATV throughout the country is in the interests of all television viewers, since this will spur the production of programming in ATV format and result in swifter reductions in the cost of ATV equipment. Thus, to the extent that permitting non-ATV use of ATV spectrum delays implementation of ATV even at a few stations, that will redound to the detriment of the public generally. Public Television urges the Commission not to adopt a regulatory scheme that will create economic disincentives to the rapid implementation of ATV.

CONCLUSION

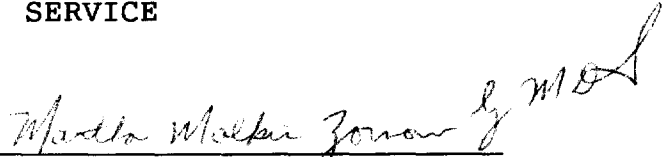
For the foregoing reasons, Public Television urges the Commission to reserve judgment on spectrum allocation, channel assignments, and technical standards issues until it has before it the technical data necessary to make informed decisions; to adhere, in assessing spectrum sufficiency and allocation procedures, to its long-standing policies fostering the development of public television; to adopt a

single ATV technical standard and assure inter-media ATV compatability; and to prohibit non-ATV use of ATV spectrum.

Respectfully submitted,


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November 30, 1988

CERTIFICATE OF SERVICE

I, Alice A. Jefferson, certify that I have, this 30th day of November, 1988, caused copies of the attached "Comments of Public Broadcasting Service and National Association of Public Television Stations" to be served by hand, on the following:

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